

PATENT ABSTRACTS OF JAPAN

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(71)Applicant : NEC CORP

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(54) EXPOSURE DEVICE AND METHOD THEREFOR

(57)Abstract:

PURPOSE: To increase the resolving power and the focal depth near the marginal resolution by a method wherein the illumination component by TE polarization waves in the parallel direction with a pattern surface is increased by obliquely illuminating with linearly polarized light.

CONSTITUTION: The beam emitted from a light source 1, after passing through an optical system 2, e.g. a beam expander, etc., to be reflected by a mirror 2, are made an even parallel beam by passing through a flyeye lens 4. At this time, an aperture 5 is arranged beneath the flyeye lens 4. The parallel beam passing through the aperture part of the aperture 5 and a condenser lens 1 obliquely illuminates a reticle 7, and a wafer 9 after passing through a projection lens 8. At this time, polarizers arranged on respective aperture parts of the applicable aperture 5 opposite to one another and apart by 180° are set up to make the polarizing direction parallel with each other. Through these procedures, the resolving power and the focal depth near the marginal resolution can be increased.

